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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/078,578 | 02/19/2002 | Martin Hans | 112740-539 | 4573 |
| 29177 | 7590 | 06/26/2006 | EXAMINER | |
| BELL, BOYD & LLOYD, LLC | | | HO, DUC CHI | |
| P. O. BOX 1135 | | | ART UNIT | PAPER NUMBER |
| CHICAGO, IL 60690-1135 | | | 2616 | |
| DATE MAILED: 06/26/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/078,578

Applicant(s)

HANS ET AL.

Examiner

Duc C. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 3-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrol (US 6,507,582), in view of Gibson et al. (US 2003/0002502), hereinafter referred to as Gibson.

Regarding claim 1, Abrol discloses radio link protocol enhancements for dynamic capacity wireless data channels. In Abrol, the determination of lost data is made by comparing the sequence number indicated by the most recently received RLP data frame to the sequence number corresponding to the sequence number of the latest previous data successfully received. For example, the last byte of a received RLP data

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frame which is not a retransmission is considered the latest previous data byte successfully received. If the byte sequence number expanded from a received RLP data frame which is not a retransmission, is different by greater than a page from the sequence number of the latest previous data byte successfully received then the loss of one or more lost RLP data frames has occurred, see fig. 4, and col. 11-line 50 to col. 12-line 23.

Abrol, however, does not expressly teach the step, marking as temporarily missing for the transmission data packets, which have not yet been received and processed.

One skill in the art would recognize the advantage of marking a missing sequence number of a set of transmitted data at a receiver as temporarily missing so that if the missing sequence number shows up later within a predetermined time for reconstruction, the set of transmitted data will be indicated as successfully received for further processing at the receiver without a retransmission of the missing packet.

Gibson discloses system for recovering lost information in a data stream by means of parity packets. According to Gibson, in order to reconstruct a packet "0", queries are made as to whether packets 1-6 are present. And packet "0" will be marked incomplete (temporary missing) if any of these packets 1-6 is not present, see 0059, so that if a reconstruction is not possible, then a retransmission of a set of packets is to occur in order to improve reliability and efficiency of a network transmission system.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Abrol and Gibson.

The suggestion/motivation for doing so would have been providing reconstruction of a missing packet by marking a missing sequence number of a packet of a set of transmitted data at a receiver as temporarily missing so that if the missing sequence number shows up later within a predetermined time for reconstruction, the set of transmitted data will be indicated as successfully received for further processing at the receiver without a retransmission of the missing packet.

Therefore, it would have been obvious to combine Abrol with Gibson to obtain the invention as specified in claim 1.

Regarding claim 2, Abrol discloses adding a sequence number in a control data header, see step C of claim 1.

Regarding claim 9, Abrol discloses a transmission of data packets in UMTS and EDGE communication system, see col. 2, lines 35-50.

Regarding claim 10, this claim has similar limitations as claim 1. Therefore, it is rejected under Abrol-Gibson for the same reasons set forth in the rejection of claim 1.

Allowable Subject Matter

4. Claims 3-8 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Talluri et al. (US 6,615,383); Buchholz et al.(US 5,440,545); Chiu et al.(US 6,505,253) are cited to show data transmission method and system

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, which is considered pertinent to the claimed invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147.

The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Duc Ho



06-21-06